

MEMORANDUM TO FILE

TO: TIMET File

FROM: Brian Rakvica

DATE: December 4, 2003

CC: Jim Najima, Todd Croft, Jennifer Carr, Jeff Johnson,
Jon Palm, Alan Tinney, Valerie King, Tamara Pelham

RE: BWPC and BCA Meeting with TIMET

1. Meeting was held on Wednesday, December 3, 2003 in Carson City in the NDEP Conference Room 101 in Building 333 at 1:00 PM.
2. In attendance:
 - a. TIMET – Craig Wilkinson
 - b. T2 Environmental – Kathy Allford
 - c. Tetra Tech – Robert Finkelstein
 - d. Smith Consultants – Steve Smith
 - e. NDEP BCA – Jennifer Carr, Jeff Johnson, Brian Rakvica
 - f. NDEP BWPC – Tamara Pelham, Diana Silsby
3. Introduction of parties.
 - a. Steve Smith is the CEM for this project and is based in Arizona.
 - b. Kathy Allford and Robert Finkelstein are consultants based in Texas.
 - c. The project organization chart has not been completed yet. The project team is essentially the same as the team for the 1999 ECIA Report, however, persons have changed companies and one person has passed away.
 - d. Other members of the project team include a chemist and a data management specialist.
4. Noted that this presentation is geared towards BWPC. Non-confidential parts of the presentation will be forwarded to all parties by TIMET.
5. Meeting objectives.
 - a. Focus on BWPC issues and GW permit modifications.
 - b. Discussion of wastewater management issues.
 - c. Discuss pong management.
 - d. Discuss the ZDP.
6. Site layout has reviewed.
 - a. It was noted that the old leach process has been permanently abandoned. TIMET has secured emission reduction credits (ERC) for this shutdown from Clark County DAQM.
7. Reviewed site history.
 - a. Noted that TIMET began operations in 1952.
8. Discussed the active plant site.

- a. 19 monitoring wells on site. 14 of these are monitored quarterly as part of the 1996 phase II ECI.
9. Discussed the Consent Agreement
 - a. 21 monitoring wells (14 on the plant site and 7 at the Pabco Road ponds) are monitored for wet chemistry, total metals, VOCs and radionuclides.
 - b. Quarterly data is available since 1996.
 - c. BCA requests a copy of all data since the last submittal in March 2000. TIMET agreed to provide this information in hard copy and electronic format to Brian, Jeff and Tamara.
 - d. Tamara noted that since this overlaps the permit requirements it would satisfy her needs and would provide some baseline information for the future GW permit.
 - e. It was noted that TIMET should continue to submit this information on a quarterly basis.
10. Discussed regulatory timeline.
11. Discussed permitted wastewater discharges.
12. Discussed site ponds.
 - a. No site ponds are currently used. HP-6 was deactivated this year by installation of tanks.
 - b. Reviewed pond uses for the CSD North and South ponds, SW-1, HP-1 and HP-6.
13. Discussed GW gradient and monitoring locations.
 - a. Gradient is due north based on data from the 14 monitoring wells and additional site wells.
 - b. Depth to groundwater has been increasing over the last four years. This is especially noticeable at the Pabco Road ponds where several wells have gone dry.
 - i. The drop at Pabco is believed to be due to the lack of use of the upgradient Henderson RIBs.
 - ii. The drop on the plant site is believed to be due to drought, repairs to plumbing lines and changes in irrigation practices upgradient.
 - c. Reviewed constituent specific data.
 - i. No significant changes in pH.
 - ii. TDS – this has been increasing in well CLD3-R (immediately downgradient of Pond HP-6) and peaked at over 40,000 ppm. It is believed that this is due to a leak in the liners of Pond HP-6. HP-6 is currently not in use (since July/August) and is dry with the exception of some damp sludge. The new tanks were constructed to hold the liquid from HP-6.
 - iii. Arsenic – well CLD1-R has been declining significantly.
 - iv. Total Chromium – wells CLD1-R and CLD3-R have been increasing. Wells have not been analyzed for hexavalent chromium. It is theorized that the increases in well CLD1-R are related to the activities at the KMCC plant site. It is theorized that the increases at well CLD3-R may be related to the pond HP-6 failure.

- v. Chloride – fluctuations have been the same as TDS.
- 14. Discussed the shallow aquifer.
 - a. NDEP noted that the upper Muddy Creek Formation is not impermeable and provided several examples.
 - b. Noted that TIMET has no wells in the Muddy Creek Formation or Aquifer.
 - c. NDEP noted that infiltration from the surface can occur and provided examples.
 - d. Tetra Tech noted that the aquifer is a result of development and did not exist when BMI was originally built.
- 15. Discussed the Accelerated Work
 - a. TIMET requires a response to their 9/30/03 letter.
 - b. Brian indicated that the schedule provided in this response is contingent upon completion of the file review. TIMET has not completed this review in the Carson City office and the files have now been available for over a month. T2 Environmental will be contacting NDEP to arrange to have these files copied.
- 16. Various discussions.
 - a. NDEP noted that COPCs is a term that is based upon risk assessment and should be used carefully. TIMET needs to develop a site-related chemical list prior to proceeding with identifying COPCs.
 - b. NDEP noted that other RPs have not completed this task correctly and are now re-sampling wells.
 - c. NDEP noted that the shift towards risk based corrective actions (RBCA) has resulted in longer analytes lists. The shift towards RBCA is primarily due to having sites where it may not be feasible to remediate the site to background.
 - d. Discussed the Henderson WRF risk assessment. Noted that many of the issues with this risk assessment were due to QA/QC procedures.
 - e. NDEP asked if TIMET has well logs for POD5-R. TIMET is looking for these. This is a Kleinfelder well.
 - f. NDEP mentioned the idea of having a BMI-NDEP technical roundtable early next year.
- 17. Discussed permit # NEV2000510 (groundwater permit)
 - a. NDEP stated that there is a severability to the permit and that part I.A.3. is independent from the requirement set forth in I.A.1. TIMET does not concur.
 - b. After extensive discussion, it was noted that the submittal to be provided for BCA's needs will also satisfy the requirements of the permit.
 - c. Tamara noted that this may negate the need to modify the permit at this time.
 - d. Tamara requested the compliance report as outlined in the permit.
- 18. Discussed the status of the ZDP project.
 - a. This is now going to be a wastewater neutralization project (WWNP).

- b. Noted that approximately \$2M was spent developing the process for the original ZDP. This project was abandoned due to high O&M costs, high installation costs and technical feasibility.
- c. Reviewed waste streams for the new project.
 - i. OPW – 35 gpm (current flow 28 gpm)
 - ii. CSD – 25 gpm (more detail on this later) (current flow 18-19 gpm)
 - iii. Caustic – 2 gpm
 - iv. Stormwater
- d. Reviewed design scope for the WWNP.
 - i. Flow at 60 gpm (max).
 - ii. Influent pH < 1 and solids at 2%.
 - iii. Effluent pH 8-8.7.
 - iv. Effluent at 86,055 gpd and 20,293 # of solids per day.
- e. Reviewed project details.
 - i. Bench tests have been completed.
 - ii. Process flow diagram has been completed.
 - iii. Proposal to complete technical design currently out for bids. Expect proposal back by January 1, 2004.
 - iv. Noted that wastewater will meet the NPDES and POTW discharge limitations. Solids will meet TCLP and will be shipped to US Ecology in Beatty, Nevada. The radionuclides are contained in this waste stream.
 - v. The reverse-osmosis part of the process will knock the effluent TDS concentration to below 2,000 ppm.
 - 1. The brine from this R.O. system will be sent to Pond HP-1 or another location. This will only be 5 gpm and is far too small for HP-1. Other options are being investigated.
 - 2. The treated water for discharge can be recycled back in to plant operations and this is being considered.
 - vi. The CSD part of the waste stream may be injected at the filter press part of the operation instead of at the beginning of the process. This will be determined during design.
- f. Discussed the schedule for pond turn over. Craig stated that this is not known.